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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,505	04/06/2001	Elliott P. Dawson	12056-2	7931

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EXAMINER	
TRAN, MY CHAU T	
ART UNIT	**PAPER NUMBER**
1639	

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/827,505	DAWSON ET AL.	
	Examiner	Art Unit	
	MY-CHAU T. TRAN	1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-16,18,19,21-24,28 and 35-38* is/are pending in the application.

4a) Of the above claim(s) *21-24 and 35-38* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-16,18,19 and 28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/7/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/07/2005 has been entered.

Application and Claims Status

2. Applicant's response filed 10/07/2005 is acknowledged and entered.

3. The amendment filed on 11/24/2003 and 12/17/2003: cancelled claims 29-34; amended claims 11, and 18; and added claims 35-38.

4. The amendment filed on09/10/2003: cancelled claim 17.

5. The amendment filed on 06/12/2003: cancelled claims 20, and 25-27.

6. The amendment filed on 12/10/2002: cancelled claims 1-10.

7. Claims 11-16, 18-19, 21-24, 28, and 35-38 are pending.

Election/Restrictions

8. The instant species election requirement is still in effect as there is no allowable generic or linking claim. Applicant has elected the following species for the elected invention (Claims 11-16, 18-19, 21-24, 28, 35-38) in the reply filed on 12/10/2002:

a. For the single specific species of cutting device, applicant elected a microtome, i.e. claim 12.

b. For the single specific species of target-strands, applicant elected a target substance embedded in a porous rod, i.e. claim 13.

c. For the single specific species of bundle of target-strands, applicant elected proteins, i.e. claim 14.

d. For the single specific species of "stabilizing" material, applicant elected epoxy, i.e. claim 18.

e. For the single specific species of "incorporated" material, applicant elected secondary enzyme (claim 28).

9. Claims 21-24, and 35-38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to ***nonelected species***, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12/10/2002.

10. Claims 11-16, 18-19, and 28 are under consideration in this Office Action.

Priority

11. This instant application is a CON of 09/145,140 filed 08/28/1998, which is a DIV of 08/927,974 filed 09/11/1997. This instant application is granted the benefit of priority under 35 U.S.C 120 for both the applications, i.e. 09/145,140 and 08/927,974.

12. *The instant invention recites a method of producing high density arrays of target substances. The method comprises the step of sectioning a bundle of target-strands that have been stabilized by embedding the bundle in a matrix.*

The target-strands comprise target substances that are located within the bundle and are noted in a database. The sectioning step results in a high density arrays.

The term "matrix" as define by the specification as either a "a material in which target substances can be embedded or to which target substances can be attached to supply additional structural support"(see pg. 5, lines 22-23) or a material in which the bundle of target-strands are embedded for stabilization (see pg. 8, lines 10-16). Thus the broadest interpretation is being applied to the term "matrix" as define by the Webster's dictionary, i.e. 'a surrounding substance within which something is contained'.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 11-14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Pharmacia Biotech AB (WO 96/17,246) (refers to as Pharmacia).

Pharmacia discloses an array of selected immobilized molecules and the methods of making the array (see e.g. Abstract; pg. 1, lines 2-10; pg. 2, line 21 thru pg. 3, line 23). The method comprises the steps of a) bundling and fixing together carrier elements wherein each element having immobilized thereto a selected molecule and having an identifiable position in the array; b) sectioning the bundles (refers to the instant claimed sectioning step); and optionally c) depositing the sections on a support (see e.g. pg. 2, line 21 thru pg. 3, line 11; pg. 4, lines 4-19; pg. 4, line 36 thru pg. 5, line 5; pg. 5, line 36 thru pg. 6, line4; fig. 1; claims 1, 2, 8-10, 11, 14, and 20). The immobilization step includes adding to the carrier elements a mixture of polymer (refers to instant claim 19) and the selected molecules (see e.g. pg. 4, lines 24-32; claim 4). The carrier elements (refers to the instant claimed bundle and instant claim 13, i.e. a target substance embedded in a porous rod) include capillaries that comprise material such as glass or plastic, and inside each capillary are affixed with a selected molecule (see e.g. pg. 3, lines 33-35; pg. 4, lines 4-19; pg. 4, line 36 thru pg. 5, line 5; fig. 1). In addition the capillaries are cast in a material, e.g. an embedding resin, which seal the space between them (refers to instant claimed limitation of embedding the bundle in a matrix)(see e.g. pg. 5, lines 2-5). The selected molecules (refers to the instant claimed target substances and instant claim 14) include molecules such as oligonucleotides, DNA and proteins (see e.g. pg. 3, lines 33-35; pg. 6, lines 27-31; claims 9 and 20). The sectioning is performed by a microtome or a laser (refers to instant claim 12)(see e.g. pg. 5, lines 25-28). The array can be used in many different applications such as immunoassay (see e.g. pg. 6, line 36 thru pg. 7, line 13). Therefore, the method of Pharmacia anticipates the presently claimed invention.

15. Claims 11-14 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Landegren et al. (US Patent 6,140,135 *filing date 06/17/1997*).

Landegren et al. discloses an array of selected immobilized molecules and the methods of making the array (see e.g. Abstract; col. 1, lines 6-13; col. 1, line 66 thru col. 2, line 21). The method comprises the steps of a) bundling and fixing together carrier elements wherein each element having immobilized thereto a selected molecule and having an identifiable position in the array; b) sectioning the bundles (refers to the instant claimed sectioning step); and optionally c) depositing the sections on a support (see e.g. col. 1, line 66 thru col. 2, line 21; col. 2, lines 51-65; col. 3, lines 21-28; fig. 1; claims 1, 2, and 6-8). The immobilization step includes adding to the carrier elements a mixture of polymer (refers to instant claim 19) and the selected molecules (see e.g. col. 3, lines 3-11). The carrier elements (refers to the instant claimed bundle and instant claim 13, i.e. a target substance embedded in a porous rod) include capillaries that comprise material such as glass or plastic, and inside each capillary are affixed with a selected molecule (see e.g. col. 2, lines 43-45; col. 2, lines 51-65; col. 3, lines 21-28; fig. 1). In addition the capillaries are cast in a material, e.g. an embedding resin, which seal the space between them (refers to instant claimed limitation of embedding the bundle in a matrix)(see e.g. col. 3, lines 25-28). The selected molecules (refers to the instant claimed target substances and instant claim 14) include molecules such as oligonucleotides, DNA and proteins (see e.g. col. 2, lines 43-45; col. 4, lines 17-24; claim 8). The sectioning is performed by a microtome or a laser (refers to instant claim 12) (see e.g. col. 3, lines 28-50). The array can be used in many different applications such as immunoassay (see e.g. col. 4, lines 25-42). Therefore, the method of Landegren et al. anticipates the presently claimed invention.

16. Claims 11-16, 19, and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Stimpson (US Patent 6,037,186; *filing date 7/16/1997*).

Stimpson teaches a method to produce arrays of compounds (see e.g. Abstract; col. 1, 6-14; col. 3, lines 30-54; col. 4, lines 22-34). Two formats of producing the arrays of compounds are described. In one format the compounds (refers to the instant claimed target substances) of the array are immobilized to porous rod elements (refers to the instant claimed bundle and instant claim 13, i.e. a target substance embedded in a porous rod) and a bundle is formed by radial compression of the rods (see e.g. col. 3, lines 47-51; col. 4, lines 7-11; fig. 1A). The rods comprise materials such as glass, polystyrene, or polypropylene (col. 10, lines 16-49). The second format thin lines of the compounds are applied on a single sheet of material and roll to form a spiral bundle (refers to the instant claimed bundle and instant claim 13, i.e. a line of a target substance drawn on a membrane)(see e.g. col. 5, lines 9-47; col. 7, lines 49-60; col. 7, line 66 thru col. 8, line 13; figs. 2A, and 2C). The compounds include biological compounds such as nucleic acid and proteins (refers to the instant claimed target substances and instant claim 14)(see e.g. col. 3, lines 47-51; col. 7, lines 19-26). The method disclosed a random synthesis of a number of compounds resulting in different array elements for each rod within a bundle of rods (col. 10, line 60 to col. 11, line 12). In both format, the bundle and the arrays are cut (refers to the instant claimed sectioning step) as slabs resulting in a high density array (see e.g. col. 8, lines 7-13; col. 9, lines 13-17; col. 12, lines 11-41). The rods or spiral bundles are secure with a sheath material, i.e. embedding the rod in a plastic embedding media (refers to instant claimed limitation of embedding the bundle in a matrix)(see e.g. col. 12, lines 11-41; col. 12, line 57 thru col. 13, line 14). The location of the rods and array elements are noted by "marking" the rods

(refers to instant claims 50, 101, 108, 118, and 126) (see e.g. col. 10, lines 58-60; col. 11, lines 18-31). The bundle arrays are section by either a microtome or laser device (refers to instant claim 12)(see e.g. col. 12, lines 12-17 and lines 42-54). The thickness of the cut slabs is in the range of 0.2-1 mm thick (refers to instant claims 15 and 16)(see e.g. col. 9, lines 13-17; col. 12, lines 11-14). The array is use to carry out assay such as binding assay (col. 6, lines 8-36; col. 12, line 57 to col. 14, line 5). The array elements can be labels with either direct or indirect labeling with enzymes (refers to claims 19 and 28)(see e.g. col. 11, lines 46-59). Therefore, the method of Stimpson anticipates the presently claimed invention.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. Claims 11-14, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pharmacia Biotech AB (WO 96/17,246) (refers to as Pharmacia) and Runge (US Patent 4,084,308).

Pharmacia discloses an array of selected immobilized molecules and the methods of making the array (see e.g. Abstract; pg. 1, lines 2-10; pg. 2, line 21 thru pg. 3, line 23). The method comprises the steps of a) bundling and fixing together carrier elements wherein each element having immobilized thereto a selected molecule and having an identifiable position in the array; b) sectioning the bundles (refers to the instant claimed sectioning step); and optionally c) depositing the sections on a support (see e.g. pg. 2, line 21 thru pg. 3, line 11; pg. 4, lines 4-19; pg. 4, line 36 thru pg. 5, line 5; pg. 5, line 36 thru pg. 6, line4; fig. 1; claims 1, 2, 8-10, 11, 14, and 20). The immobilization step includes adding to the carrier elements a mixture of polymer (refers to instant claim 19) and the selected molecules (see e.g. pg. 4, lines 24-32; claim 4). The carrier elements (refers to the instant claimed bundle and instant claim 13, i.e. a target substance embedded in a porous rod) include capillaries that comprise material such as glass or plastic, and inside each capillary are affixed with a selected molecule (see e.g. pg. 3, lines 33-35; pg. 4, lines 4-19; pg. 4, line 36 thru pg. 5, line 5; fig. 1). In addition the capillaries are cast in a material, e.g. an embedding resin, which seal the space between them (refers to instant claimed limitation of embedding the bundle in a matrix)(see e.g. pg. 5, lines 2-5). The selected molecules (refers to the instant claimed target substances and instant claim 14) include molecules such as oligonucleotides, DNA and proteins (see e.g. pg. 3, lines 33-35; pg. 6, lines 27-31; claims 9 and 20). The sectioning is performed by a microtome or a laser (refers to instant claim 12)(see e.g.

pg. 5, lines 25-28). The array can be used in many different applications such as immunoassay (see e.g. pg. 6, line 36 thru pg. 7, line 13).

The method of Pharmacia differs from the presently claimed invention by failing to disclose using an epoxy matrix to stabilize the bundle of rods for sectioning.

Runge teaches a method of first stabilizing bundle of rods by embedding them in epoxy and then slicing the bundle (see e.g. Abstract; col. 1, lines 42-62; col. 2, lines 44-60; col. 5, lines 1-16; fig. 1-3). The method is a simple technique for slicing a bundle of rods that can be use in both hand tool and mass-production machine environments (see e.g. col. 2, lines 13-16).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose using an epoxy matrix to stabilize the bundle of rods for sectioning as taught by Runge in the method of Pharmacia. One of ordinary skill in the art would have been motivated to disclose using an epoxy matrix to stabilize the bundle of rods for sectioning in the Runge of Pharmacia for the advantage of providing a simple technique for slicing a bundle of rods that can be use in both hand tool and mass-production machine environments (Runge: col. 2, lines 13-16) since both Pharmacia and Runge disclose stabilizing the bundle of rods for sectioning (Pharmacia: pg. 5, lines 25-35; Runge: col. 1, lines 42-62). Furthermore, one of ordinary skill in the art would have a reasonable expectation of success in the combination of Pharmacia and Runge because the type of matrix use to stabilize the bundle of rods for sectioning would be a choice of experimental design and is considered within the purview of the cited prior art.

Therefore, the combine teachings of Pharmacia and Runge do render the method of the instant claims *prima facie* obvious.

20. Claims 11-16, 18, 19, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stimpson (US Patent 6,037,186; *filing date 7/16/1997*) and Runge (US Patent 4,084,308).

Stimpson teaches a method to produce arrays of compounds (see e.g. Abstract; col. 1, 6-14; col. 3, lines 30-54; col. 4, lines 22-34). Two formats of producing the arrays of compounds are described. In one format the compounds (refers to the instant claimed target substances) of the array are immobilized to porous rod elements (refers to the instant claimed bundle and instant claim 13, i.e. a target substance embedded in a porous rod) and a bundle is formed by radial compression of the rods (see e.g. col. 3, lines 47-51; col. 4, lines 7-11; fig. 1A). The rods comprise materials such as glass, polystyrene, or polypropylene (col. 10, lines 16-49). The second format thin lines of the compounds are applied on a single sheet of material and roll to form a spiral bundle (refers to the instant claimed bundle and instant claim 13, i.e. a line of a target substance drawn on a membrane)(see e.g. col. 5, lines 9-47; col. 7, lines 49-60; col. 7, line 66 thru col. 8, line 13; figs. 2A, and 2C). The compounds include biological compounds such as nucleic acid and proteins (refers to the instant claimed target substances and instant claim 14)(see e.g. col. 3, lines 47-51; col. 7, lines 19-26). The method disclosed a random synthesis of a number of compounds resulting in different array elements for each rod within a bundle of rods (col. 10, line 60 to col. 11, line 12). In both format, the bundle and the arrays are cut (refers to the instant claimed sectioning step) as slabs resulting in a high density array (see e.g. col. 8, lines 7-13; col. 9, lines 13-17; col. 12, lines 11-41). The rods or spiral bundles are secure with a sheath material, i.e. embedding the rod in a plastic embedding media (refers to instant claimed limitation of embedding the bundle in a matrix)(see e.g. col. 12, lines 11-41; col. 12, line 57 thru col. 13, line 14). The location of the rods and array elements are noted by "marking" the rods

(refers to instant claims 50, 101, 108, 118, and 126) (see e.g. col. 10, lines 58-60; col. 11, lines 18-31). The bundle arrays are section by either a microtome or laser device (refers to instant claim 12)(see e.g. col. 12, lines 12-17 and lines 42-54). The thickness of the cut slabs is in the range of 0.2-1 mm thick (refers to instant claims 15 and 16)(see e.g. col. 9, lines 13-17; col. 12, lines 11-14). The array is use to carry out assay such as binding assay (col. 6, lines 8-36; col. 12, line 57 to col. 14, line 5). The array elements can be labels with either direct or indirect labeling with enzymes (refers to claims 19 and 28)(see e.g. col. 11, lines 46-59).

The method of Stimpson differs from the presently claimed invention by failing to disclose using an epoxy matrix to stabilize the bundle of rods for sectioning.

Runge teaches a method of first stabilizing bundle of rods by embedding them in epoxy and then slicing the bundle (see e.g. Abstract; col. 1, lines 42-62; col. 2, lines 44-60; col. 5, lines 1-16; fig. 1-3). The method is a simple technique for slicing a bundle of rods that can be use in both hand tool and mass-production machine environments (see e.g. col. 2, lines 13-16).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose using an epoxy matrix to stabilize the bundle for sectioning as taught by Runge in the method of Stimpson. One of ordinary skill in the art would have been motivated to disclose using an epoxy matrix to stabilize the bundle of rods for sectioning in the method of Stimpson for the advantage of providing a simple technique for slicing a bundle of rods that can be use in both hand tool and mass-production machine environments (Runge: col. 2, lines 13-16). Additionally, both Stimpson and Runge disclose stabilizing the bundle of rods for sectioning (Stimpson: col. 4, lines 28-34; Runge: col. 1, lines 42-62). Furthermore, one of ordinary skill in the art would have reasonably expectation of success in the combination of

Stimpson and Runge because the type of stabilizer use such as epoxy would be considered within the purview of the cited prior art.

Therefore, the combine teachings of Stimpson and Runge do render the method of the instant claims *prima facie* obvious.

Response to Arguments

21. Applicant's argument directed to the rejection under 35 USC 102(e) as being anticipated by Stimpson (US Patent 6,037,186; *filing date 7/16/1997*) for claims 11-16, 19, and 28 was considered but they are not persuasive for the following reasons.

Applicant alleges that the method of Stimpson does not anticipate the presently claimed method because Stimpson does not teach or suggest the limitation in claim 11 of "*a bundle of target-strands that has been stabilized by embedding the bundle in a matrix*". In addition, applicant provided several definitions of the term "embedding" in the technical dictionary in the biological arts, and '*asserts that any reliance on a dictionary outside of the art for rejecting the present invention is, in and of itself, improper*'. Thus the method of Stimpson does not anticipate the presently claimed method.

Applicant's arguments are not convincing since the teachings of Stimpson do anticipate the method of the instant claims.

First, the words of the claim of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification, i.e. '*the pending claims must be "given *>their< broadest reasonable interpretation"*'. See MPEP § 2111 and 2111.01. MPEP § 2111.01 state:

> *While the claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination.* ***During examination, the claims must be interpreted as broadly as their terms reasonably allow.*** *In re American Academy of Science Tech Center, **>367 F.3d 1359, 1369, 70 USPQ2d 1827, 1834 (Fed. Cir. 2004)< (The USPTO uses a different standard for construing claims than that used by district courts; during examination the USPTO must give claims their broadest reasonable interpretation.).* ***This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification.*** *In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); Chef America, Inc. v. Lamb-Weston, Inc., 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004).*

Thus, to only define the term "embedding" within the bound of the technical dictionary in the biological arts would be ***improper*** since the claims would not be ***"given *>their< broadest reasonable interpretation"***.

Second, the broadest interpretation of the term 'embedding' as define by the Webster's Dictionary is '*to fix securely in a surrounding mass*' would encompasses the term 'embedding' as define in the technical dictionary in the biological arts provided by applicant. That is the broadest reasonable interpretation of the claimed term 'embedding' is consistent with the interpretation that those skilled in the art would reach.

Third, the instant specification does not provide a ***clear definition*** that is distinct from the plain meaning of the claimed term 'embedding'.

Fourth, Stimpson does suggest the limitation in claim 11 of "*a bundle of target-strands that has been stabilized by embedding the bundle in a matrix*", i.e. the bundle is '*fix securely in a surrounding mass*' (see e.g. col. 6, lines 46-50; col. 12, lines 11-41; col. 12, line 57 thru col. 13, line 14; fig. 1B and 1C).

Therefore, the teachings of Stimpson do anticipate the method of the instant claims, and the rejection is maintained.

22. Applicant's argument directed to the rejection under 35 USC 103(a) as being unpatentable over Stimpson (US Patent 6,037,186; *filing date 7/16/1997*) and Runge (US Patent 4,084,308) for claims 11-16, 18, 19, and 28 was considered but they are not persuasive for the following reasons.

Applicant contends that the method combination of Stimpson and Runge is not obvious over the presently claimed method because neither Stimpson nor Runge teach or suggest the limitation in claim 11 of "*a bundle of target-strands that has been stabilized by embedding the bundle in a matrix*". In addition, applicant provided several definitions of the term "embedding" in the technical dictionary in the biological arts, and '*asserts that any reliance on a dictionary outside of the art for rejecting the present invention is, in and of itself, improper*'. Thus the method combination of Stimpson and Runge is not obvious over the presently claimed method.

Applicant's arguments are not convincing since the combine teachings of Stimpson and Runge do render the method of the instant claims *prima facie* obvious.

First, the words of the claim of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification, i.e. '*the pending claims must be "given *>their< broadest reasonable interpretation"*'. See MPEP § 2111 and 2111.01. MPEP § 2111.01 state:

> *While the claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination.* ***During examination, the claims must be interpreted as broadly as their terms reasonably allow.*** *In re American Academy of Science Tech Center, **>367 F.3d 1359, 1369, 70 USPQ2d 1827, 1834 (Fed. Cir. 2004)< (The USPTO uses a different standard for construing claims than that used by district courts; during examination the USPTO must give claims their broadest reasonable interpretation.).* ***This means that the words of the claim must be given their***

> ***plain meaning unless applicant has provided a clear definition in the specification.*** *In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); Chef America, Inc. v. Lamb-Weston, Inc., 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004).*

Thus, to only define the term "embedding" within the bound of the technical dictionary in the biological arts would be ***improper*** since the claims would not be ***"given *>their< broadest reasonable interpretation"***.

Second, the broadest interpretation of the term 'embedding' as define by the Webster's Dictionary is '*to fix securely in a surrounding mass*' would encompasses the term 'embedding' as define in the technical dictionary in the biological arts provided by applicant. That is the broadest reasonable interpretation of the claimed term 'embedding' is consistent with the interpretation that those skilled in the art would reach.

Third, the instant specification does not provide a ***clear definition*** that is distinct from the plain meaning of the claimed term 'embedding'.

Fourth, Stimpson does suggest the limitation in claim 11 of "*a bundle of target-strands that has been stabilized by embedding the bundle in a matrix*", i.e. the bundle is '*fix securely in a surrounding mass*' (see e.g. col. 6, lines 46-50; col. 12, lines 11-41; col. 12, line 57 thru col. 13, line 14; fig. 1B and 1C).

Therefore, the combine teachings of Stimpson and Runge do render the method of the instant claims *prima facie* obvious, and the rejection is maintained.

Conclusion

23. No claims allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Chau T. Tran whose telephone number is 571-272-0810. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew J. Wang can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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mct
December 12, 2005

PADMASHRI PONNALURI
PRIMARY EXAMINER